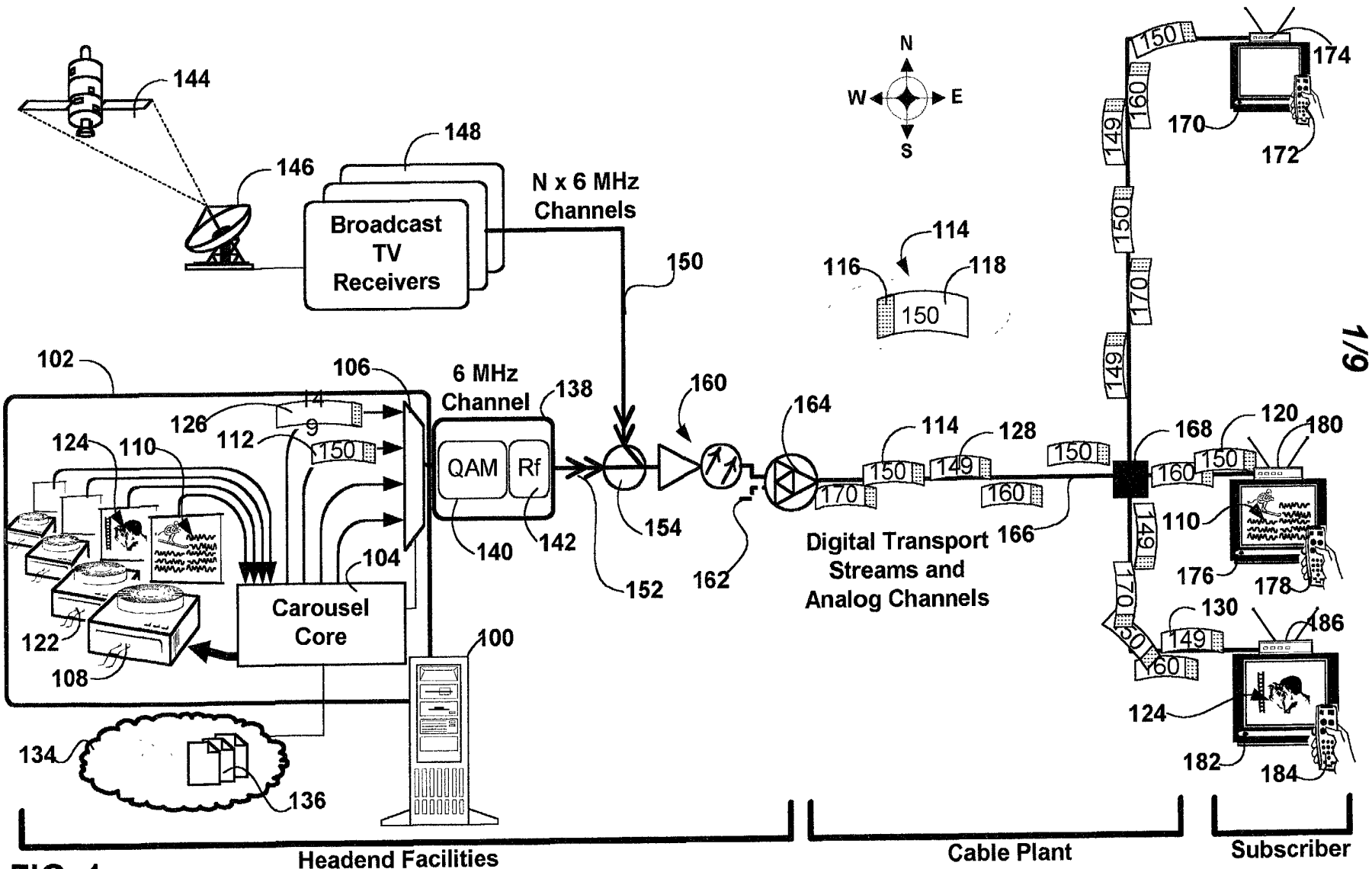
144
146
148
Broadcast TV Receivers
N x 6 MHz Channels
150
102
106
6 MHz Channel
138
126
112
124
110
14
9
150
QAM
Rf
140
142
154
152
160
162
164
104
Carousel Core
122
108
100
134
136
Headend Facilities
N
W
E
S
114
116
118
150
Digital Transport Streams and Analog Channels
166
168
120
180
174
170
172
176
178
130
186
182
184
Cable Plant
Subscriber

FIG. 1

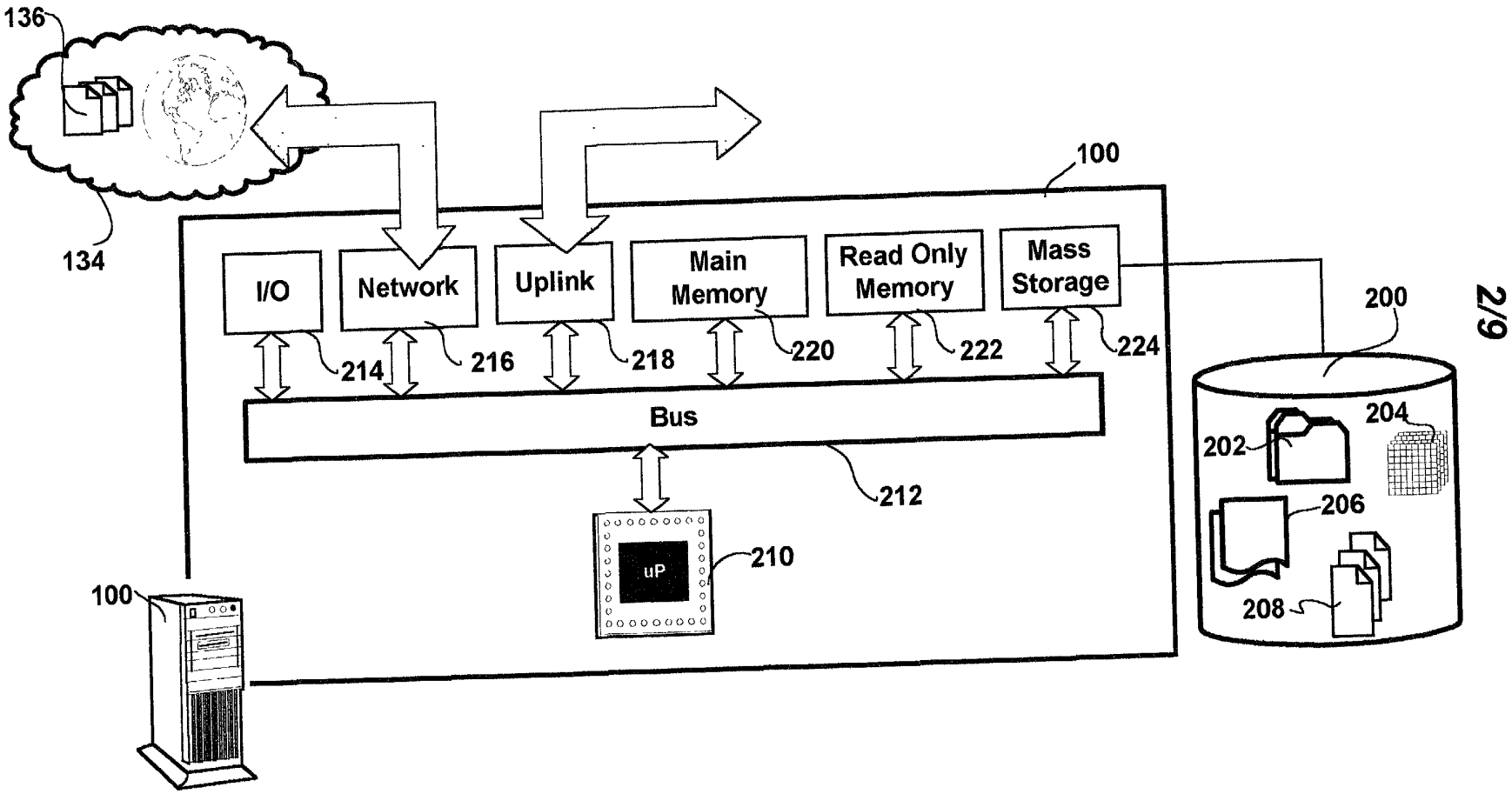
136
134
100
I/O
Network
Uplink
Main Memory
Read Only Memory
Mass Storage
214
216
218
220
222
224
Bus
212
uP
210
100
200
202
204
206
208

FIG. 2

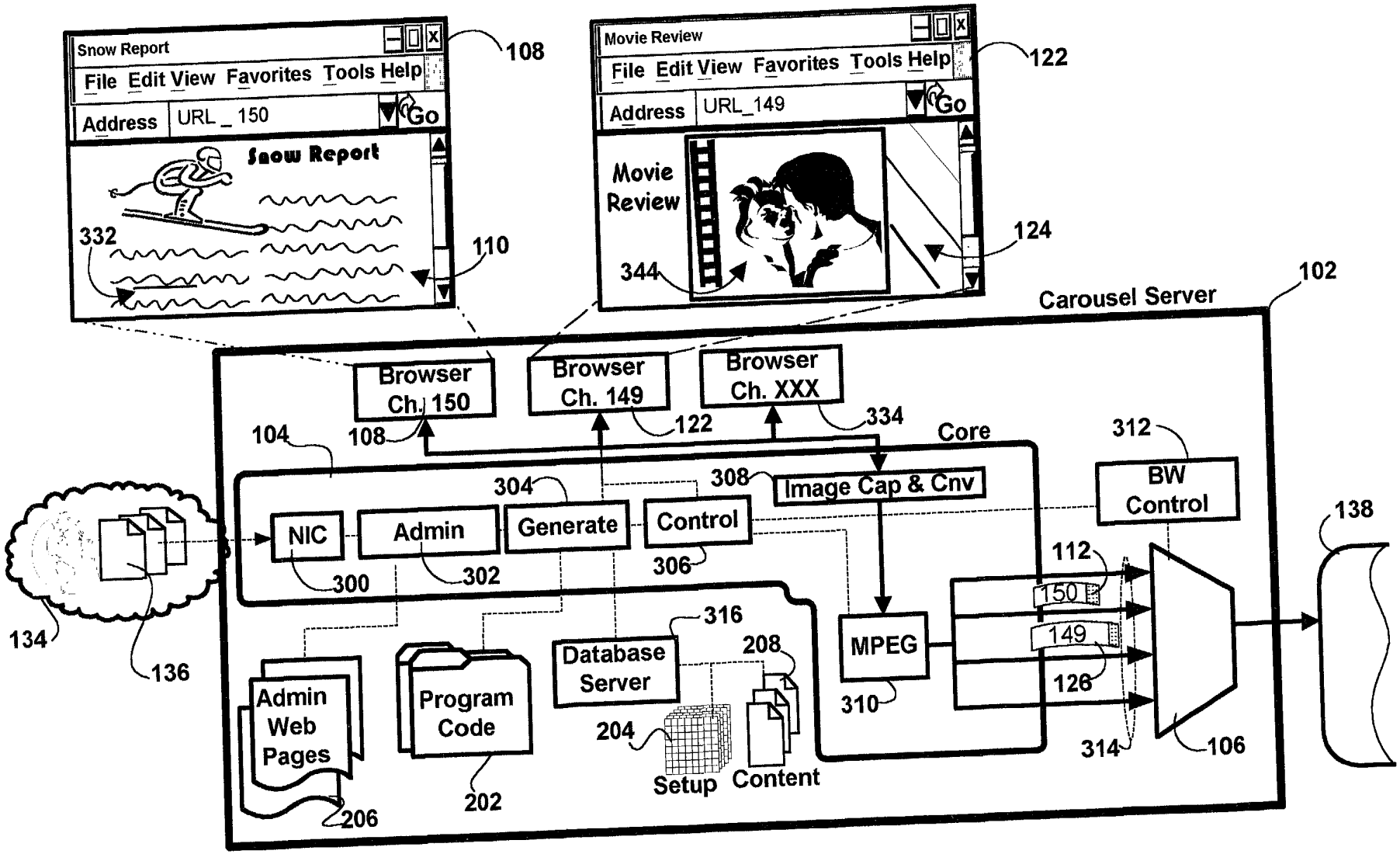
Snow Report
File Edit View Favorites Tools Help
Address URL _ 150
Go
Snow Report
108
332
110
Movie Review
File Edit View Favorites Tools Help
Address URL_149
Go
Movie Review
122
124
344
Carousel Server
102
Browser Ch. 150
Browser Ch. 149
Browser Ch. XXX
104
108
122
334
Core
312
304
308
Image Cap & Cnv
BW Control
NIC
Admin
Generate
Control
300
302
306
112
150
149
126
138
134
136
316
208
Database Server
MPEG
310
Admin Web Pages
Program Code
204
Setup
Content
206
202
314
106

FIG. 3

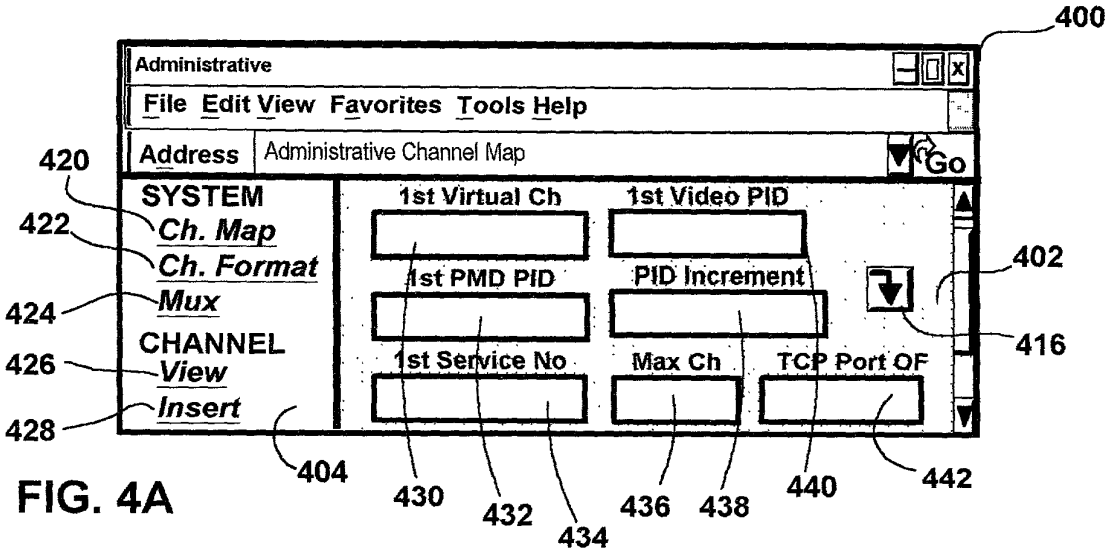

FIG. 4A

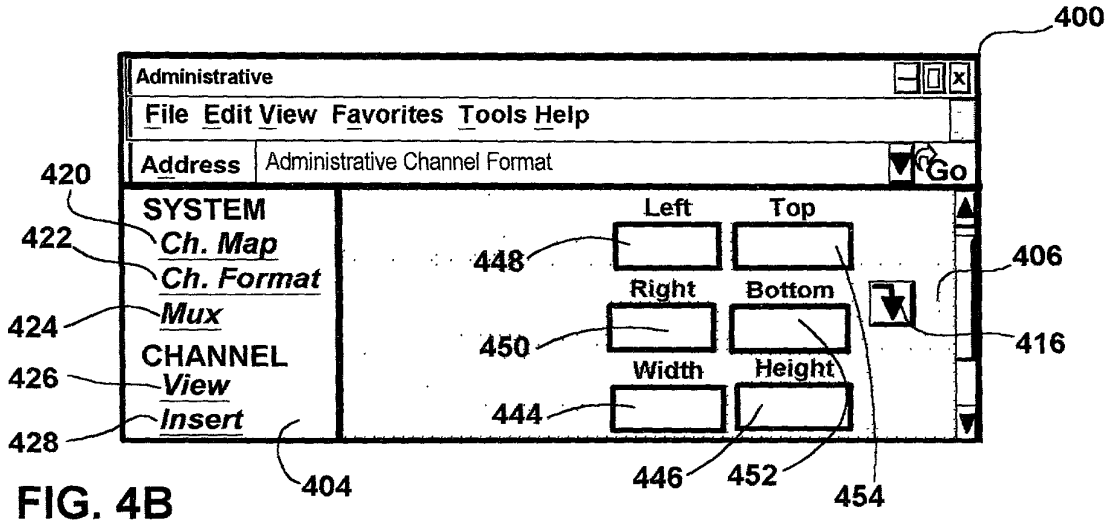

FIG. 4B

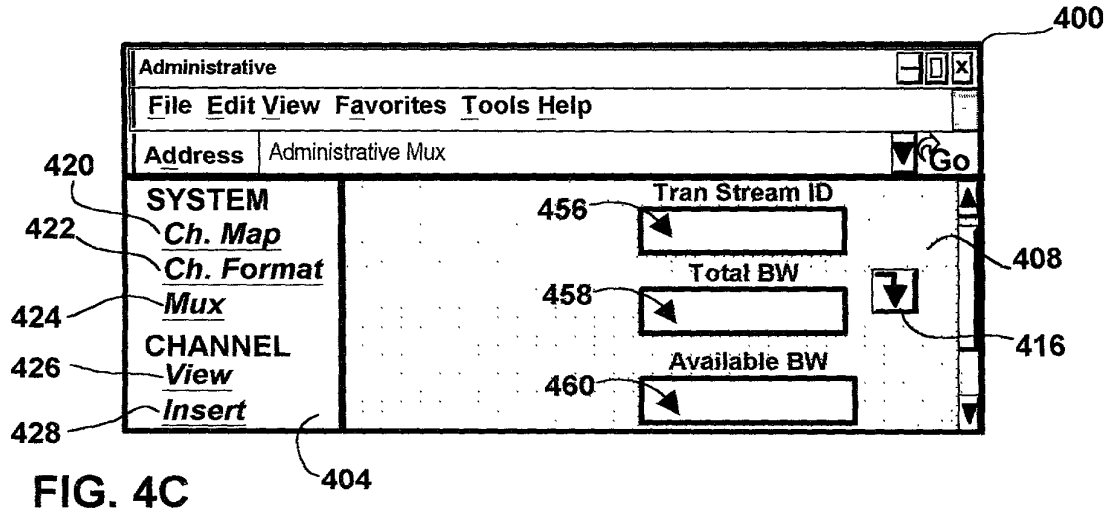

FIG. 4C

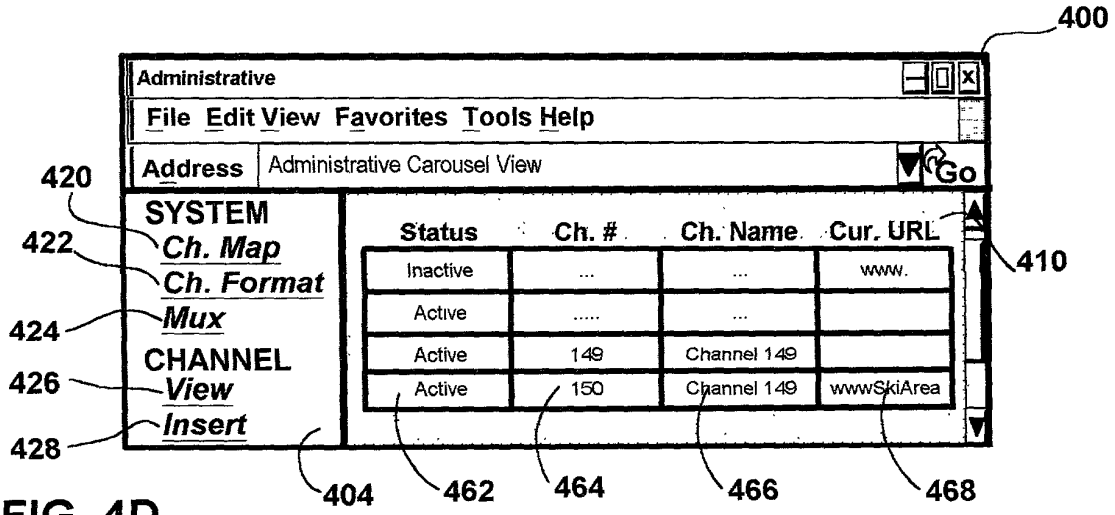
400
Administrative
File Edit View Favorites Tools Help
Address
Administrative Carousel View
Go
420
SYSTEM
Ch. Map
422
Ch. Format
424
Mux
CHANNEL
426
View
428
Insert
Status
Ch. #
Ch. Name
Cur. URL
Inactive
...
...
www.
Active
.....
...
Active
149
Channel 149
Active
150
Channel 149
wwwSkiArea
410
404
462
464
466
468

FIG. 4D

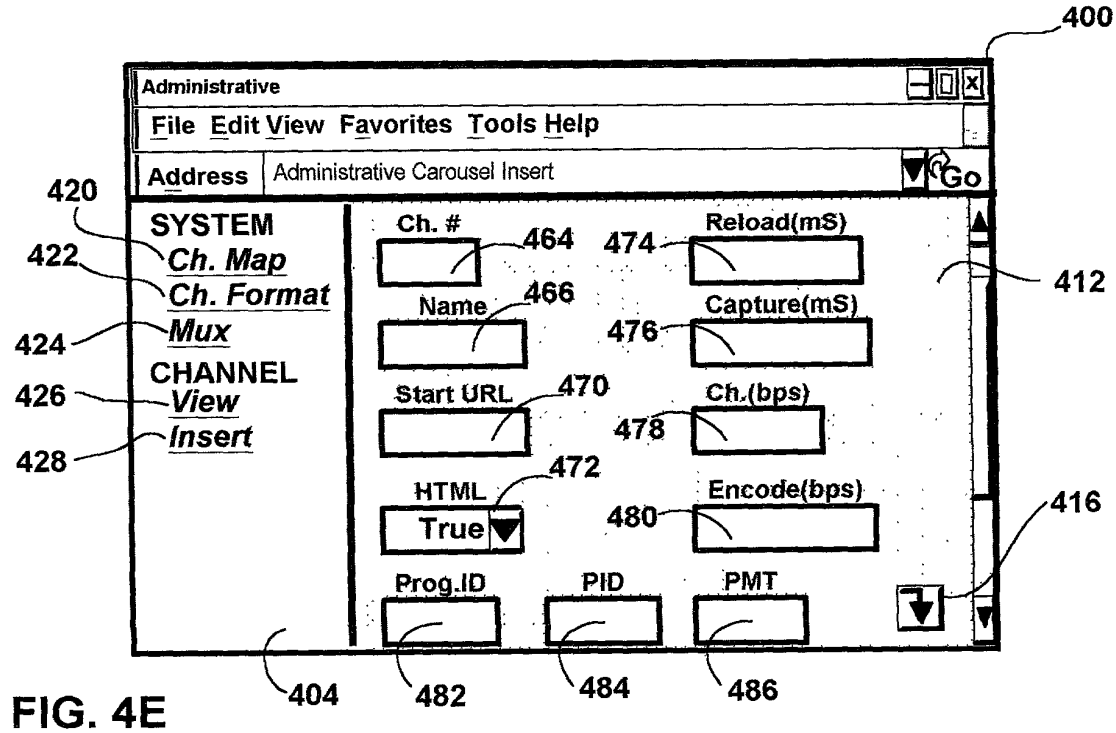
400
Administrative
File Edit View Favorites Tools Help
Address
Administrative Carousel Insert
Go
420
SYSTEM
Ch. Map
422
Ch. Format
424
Mux
CHANNEL
426
View
428
Insert
Ch. #
464
474
Reload(mS)
412
Name
466
Capture(mS)
476
Start URL
470
Ch.(bps)
478
HTML
472
True
Encode(bps)
480
416
Prog.ID
PID
PMT
404
482
484
486

FIG. 4E

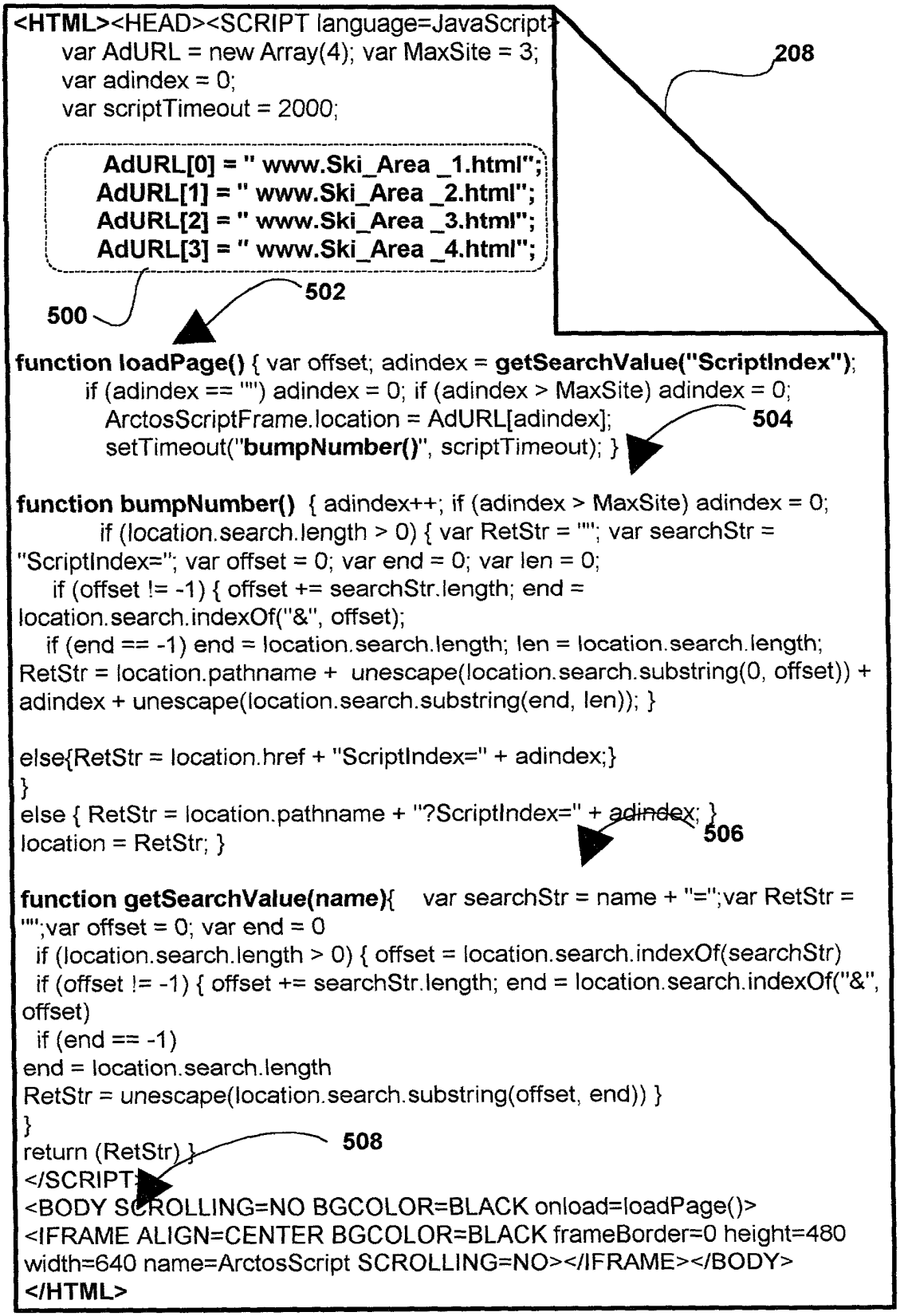
<HTML><HEAD><SCRIPT language=JavaScript>
var AdURL = new Array(4); var MaxSite = 3;
var adindex = 0;
var scriptTimeout = 2000;
AdURL[0] = " www.Ski_Area _1.html";
AdURL[1] = " www.Ski_Area _2.html";
AdURL[2] = " www.Ski_Area _3.html";
AdURL[3] = " www.Ski_Area _4.html";
208
500
502
function loadPage() { var offset; adindex = getSearchValue("ScriptIndex");
if (adindex == "") adindex = 0; if (adindex > MaxSite) adindex = 0;
ArctosScriptFrame.location = AdURL[adindex];
504
setTimeout("bumpNumber()", scriptTimeout); }
function bumpNumber() { adindex++; if (adindex > MaxSite) adindex = 0;
if (location.search.length > 0) { var RetStr = ""; var searchStr =
"ScriptIndex="; var offset = 0; var end = 0; var len = 0;
if (offset != -1) { offset += searchStr.length; end =
location.search.indexOf("&", offset);
if (end == -1) end = location.search.length; len = location.search.length;
RetStr = location.pathname + unescape(location.search.substring(0, offset)) +
adindex + unescape(location.search.substring(end, len)); }
else{RetStr = location.href + "ScriptIndex=" + adindex;}
}
else { RetStr = location.pathname + "?ScriptIndex=" + adindex; }
506
location = RetStr; }
function getSearchValue(name){ var searchStr = name + "=";var RetStr =
"";var offset = 0; var end = 0
if (location.search.length > 0) { offset = location.search.indexOf(searchStr)
if (offset != -1) { offset += searchStr.length; end = location.search.indexOf("&",
offset)
if (end == -1)
end = location.search.length
RetStr = unescape(location.search.substring(offset, end)) }
}
508
return (RetStr) }
</SCRIPT>
<BODY SCROLLING=NO BGCOLOR=BLACK onload=loadPage()>
<IFRAME ALIGN=CENTER BGCOLOR=BLACK frameBorder=0 height=480
width=640 name=ArctosScript SCROLLING=NO></IFRAME></BODY>
</HTML>

FIG. 5

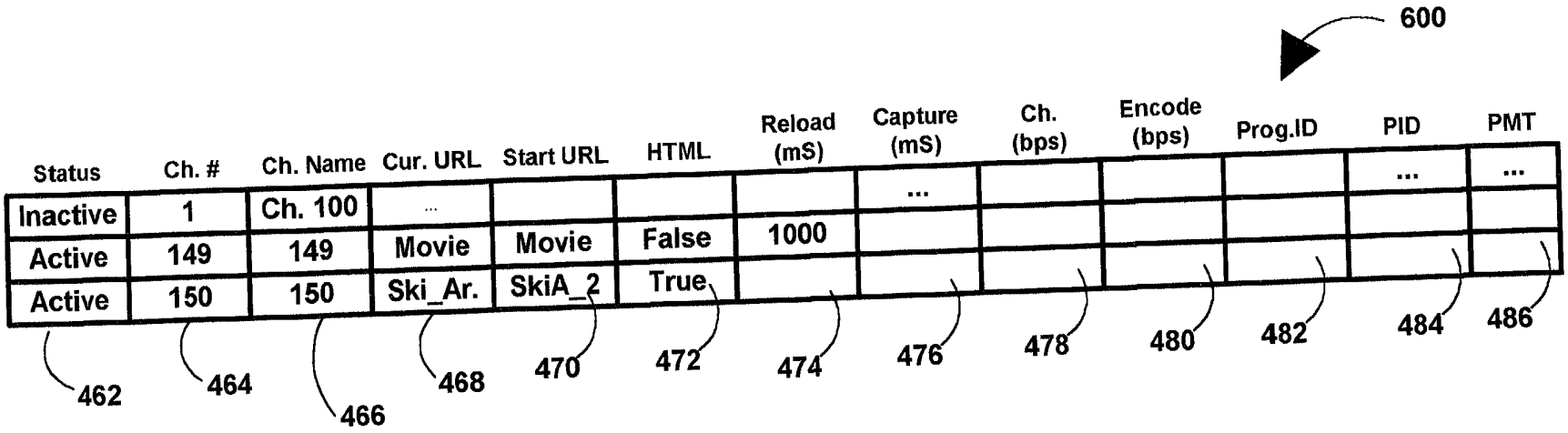
600
Status
Ch. #
Ch. Name
Cur. URL
Start URL
HTML
Reload (mS)
Capture (mS)
Ch. (bps)
Encode (bps)
Prog.ID
PID
PMT
Inactive
1
Ch. 100
...
Active
149
149
Movie
Movie
False
1000
Active
150
150
Ski_Ar.
SkiA_2
True
462
464
466
468
470
472
474
476
478
480
482
484
486

FIG. 6A

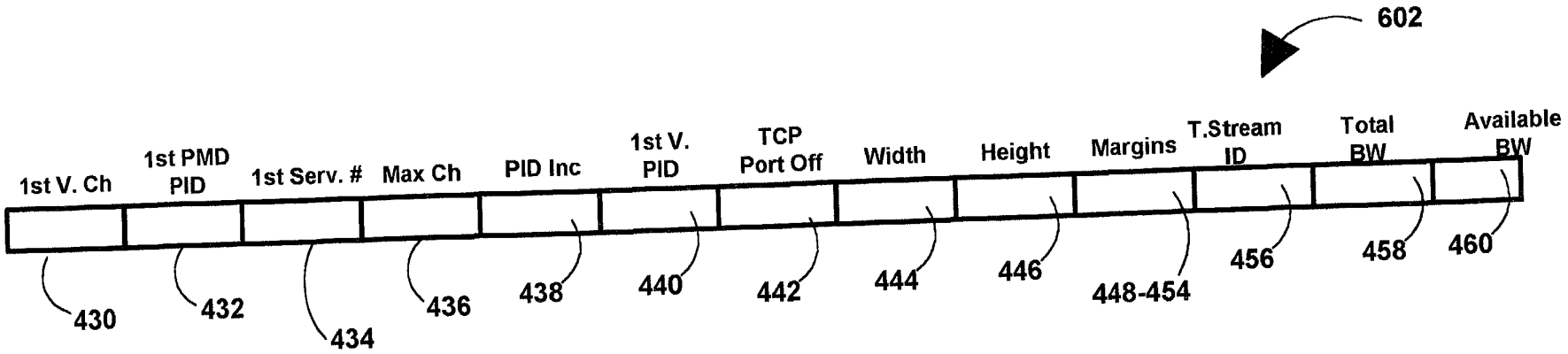
602
1st V. Ch
1st PMD PID
1st Serv. #
Max Ch
PID Inc
1st V. PID
TCP Port Off
Width
Height
Margins
T.Stream ID
Total BW
Available BW
430
432
434
436
438
440
442
444
446
448-454
456
458
460

FIG. 6B

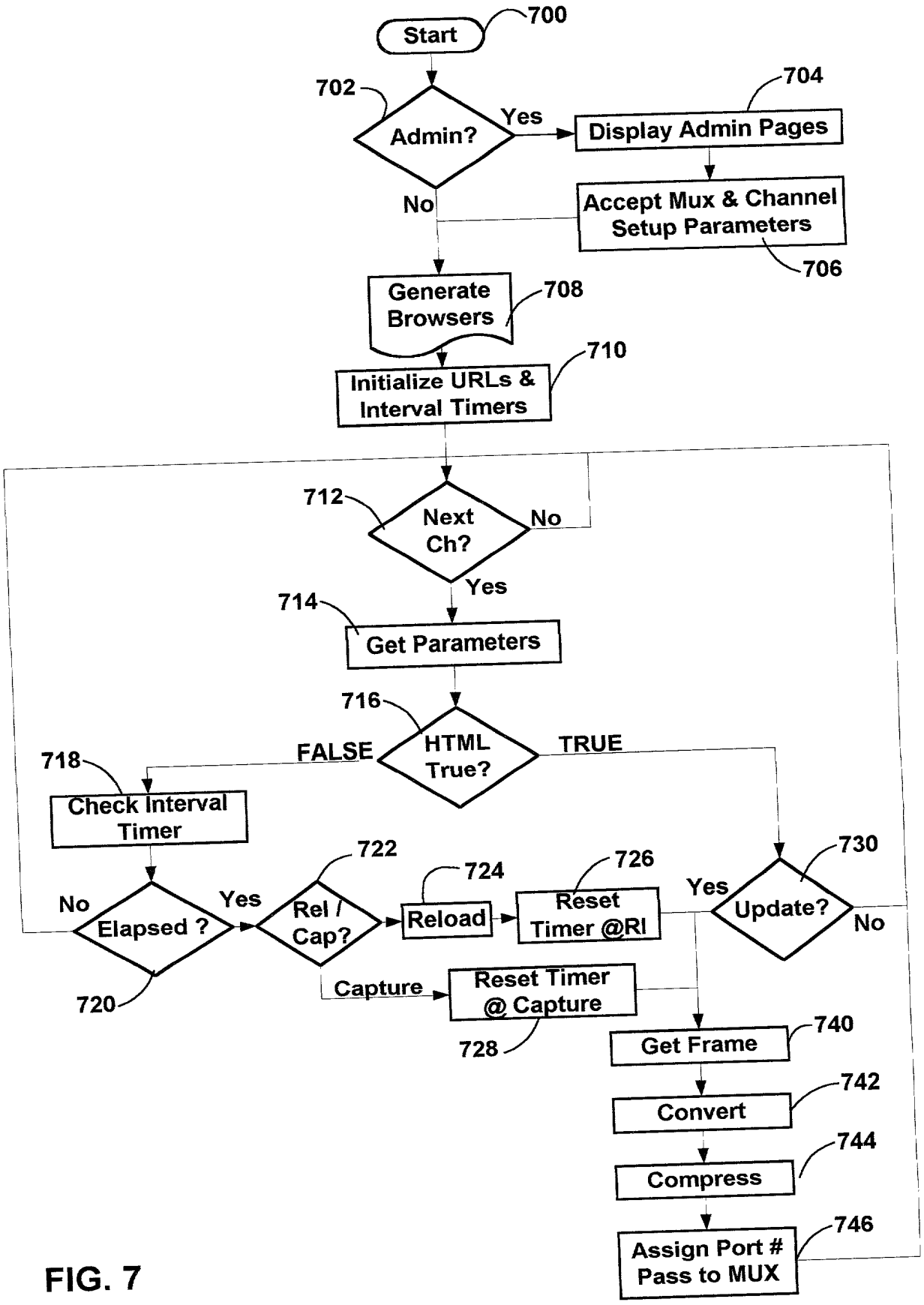
Start
700
Admin?
702
Yes
Display Admin Pages
704
No
Accept Mux & Channel Setup Parameters
706
Generate Browsers
708
Initialize URLs & Interval Timers
710
Next Ch?
712
No
Yes
Get Parameters
714
HTML True?
716
FALSE
TRUE
Check Interval Timer
718
Elapsed ?
720
No
Yes
Rel / Cap?
722
Reload
724
Reset Timer @RI
726
Update?
730
Yes
No
Capture
Reset Timer @ Capture
728
Get Frame
740
Convert
742
Compress
744
Assign Port # Pass to MUX
746

FIG. 7

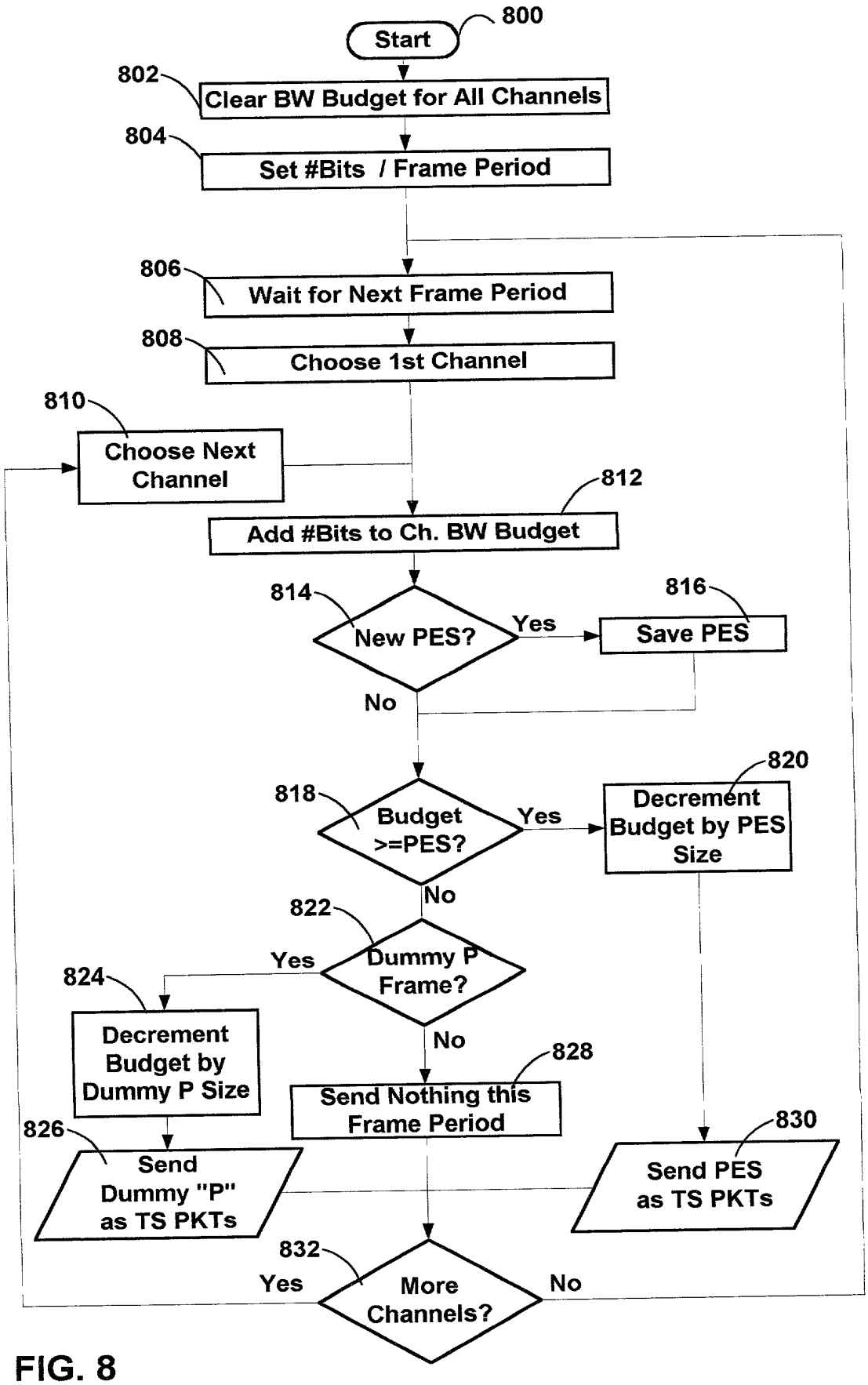
800
Start
802
Clear BW Budget for All Channels
804
Set #Bits / Frame Period
806
Wait for Next Frame Period
808
Choose 1st Channel
810
Choose Next Channel
812
Add #Bits to Ch. BW Budget
814
New PES?
Yes
816
Save PES
No
818
Budget >=PES?
Yes
820
Decrement Budget by PES Size
No
822
Dummy P Frame?
Yes
824
Decrement Budget by Dummy P Size
No
828
Send Nothing this Frame Period
826
Send Dummy "P" as TS PKTs
830
Send PES as TS PKTs
832
More Channels?
Yes
No

FIG. 8